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Stephen has taught mathematics at both the high school and university level. He has served as Director of International Risk for UNUM, working in Buenos Aires, Hong Kong and Tokyo and has experience in pension consulting with Hewitt Associates. He co-founded a network of food banks in Argentina and is fluent in Spanish. He has a Sc.B. in Applied Mathematics from Brown University.

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Models for Quantifying Risk

Sixth Edition

Stephen J. Camilli, ASA Ian Duncan, FSA, FIA, FCIA, MAAA Richard L. London, FSA

SIX AREAS OF EXPANDED COVERAGE IN THE

 $\ddot{a}_{x\bar{n}|}^{(m)} = \ddot{a}_{x\bar{n}|} - \frac{m-1}{2m} (1 - v_n^n p_x) - \frac{m-1}{12m^2} (\delta + \mu_x - v_n^n p_x) (\delta + \mu_{x+n})$

6 TH EDITION



THE NEW

6th Edition MODELS FOR QUANTIFYING RISK

In 2013, the Society of Actuaries announced a change to Exam MLC's format, incorporating 60% written answer questions and new standard notation and terminology to be used for the exam.

Six important changes to the Sixth Edition:

1 WRITTEN-ANSWER EXAMPLES

This edition offers additional written-answer examples in order to better prepare the reader for the new SOA exam format.

NOTATION AND TERMINOLOGY CONFORMS TO EXAM MLC

MQR 6 fully incorporates all standard notation and terminology for exam MLC, as detailed by the SOA in their document *Notation and Terminology Used on Exam MLC*.

About Models for Quantifying Risk

There are several areas of expanded content in the Sixth Edition, due to the revised format of SOA Exam MLC. The additional written-answer examples will better prepare students for this question format. Additional treatment of multi-state models, Thiele's Equation, profit testing, and Universal Life Insurance has been added. This book is specifically focused on the North American market and actuarial profession. The notation and terminology fully conform to that being used on Exam MLC, thus offering a seamless transition from textbook study to exam day.

The textbook presents a variety of stochastic models for the actuary to use in undertaking the analysis of risk. It is designed to be appropriate for use in a two or three semester university course in basic actuarial science. Specifically written with SOA Exam MLC and CAS Exam LC in mind, it is currently an approved reference for Exam LC. Models are evaluated in a generic form with life contingencies included as one of many applications of the science. Students will find this book to be a valuable reference due to its easy-to-understand explanations and end-of-chapter exercises.

MULTI-STATE MODELS

Extension of multi-state model representation to almost all topics covered in the text.

4 FOCUS ON NORTH AMERICAN MARKET AND ACTUARIAL PROFESSION

This book is written specifically for the multi-disciplinary needs of the North American market. This is reflected in both content and terminology.

5 [PROFIT TESTING, PARTICIPATING INSURANCE, AND UNIVERSAL LIFE]

MQR 6 contains an expanded treatment of these topics.

THIELE'S EQUATION

Additional applications of this important equation are presented, to more fully prepare the reader for exam day.

